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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,496	04/17/2007	James Eldon	006474.0001 I	4601
22907 7590 04/01/2010 BANNER & WITCOFF, LTD. 1100 13th STREET, N.W. SUITE 1200 WASHINGTON, DC 20005-4051				
EXAMINER DANIELS, ANTHONY J				
ART UNIT		PAPER NUMBER		
2622				
MAIL DATE		DELIVERY MODE		
04/01/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/584,496

**Applicant(s)**

ELDON ET AL.

**Examiner**

ANTHONY J. DANIELS

**Art Unit**

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4-20, 22-28 and 32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-20, 22-28 and 32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **9DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/19/2010 has been entered.

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1 and 28 and the Hiroyasu reference have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1,4-13,15-20,22-28 and 32 rejected under 35 U.S.C. 102(b) as being anticipated by Hiroyasu et al. (US 2003/0210440) in view of Goldenberg (US # 5,363,089) and further in view of Song (US 2002/0025827).

**Note the examiner has made claims that Hiroyasu does not teach certain elements that were claimed to be taught by Hiroyasu in previous Office Actions. The examiner**

**believes that Hiroyasu still teaches some of these features. However, in order to meet Applicant's invention more closely, these elements are said to be taught by different prior art references.**

As to claim 1, Hiroyasu et al. teaches a handheld electronic device hinge (Figure 5, hinge section "12") for mechanically connecting first and second rotatable body members (Figure 4, body section "13" and display section "11", respectively) of a handheld electronic device (Figure 4, PDA "1"), said hinge comprising a first bracket (Figure 5, supporting member "73"), wherein said first bracket comprises: a first connecting member for connecting to the first rotatable body member of the handheld electronic device (Figure 5, supporting element "74") for rotation around a first axis (Figure 5, axis "12-1"); wherein the first bracket comprises a third connecting member for connecting to the second rotatable body (Figure 5, display section "11") member of the handheld electronic device for rotation around a third axis (Figure 6, axis "11-6"), said third axis being perpendicular to said first axis (Figure 6). The claim differs from Hiroyasu in that it requires a second bracket and a second connecting member connected to the second bracket for rotation of said second bracket around a second axis (1). The claim further differs from Hiroyasu in that said first bracket further comprises a fourth connecting member for connecting to a third body member of the handheld electronic device, and wherein the third body member is rotatable and the fourth connecting member is for connecting to the third body member of the handheld electronic device for rotation around a fourth axis, said fourth axis being perpendicular to said first and second axes, wherein said first, second, and third rotatable body members are configured to rotate around said first, third and fourth axes, respectively, independently of one another (2).

In the same field of endeavor, Goldenberg teaches a double bracketed hinge device for an electronic device (Figure 1). The hinge includes a first bracket with connecting member (*equivalent to first bracket of Hiroyasu*) (Figure 2, left endcap "125" and upper cylindrical post "230") and a second bracket with connecting member allowing a first and second body portions to rotate about the two parallel axes, independently (1) (Col. 3, Lines 39-46) In light of the teaching of Goldenberg, it would have been obvious to one of ordinary skill in the art to include the double-bracketed hinge in place of hinge "12" in Hiroyasu, because an artisan of ordinary skill in the art would recognize that this would provide added user-selectable positions (see Goldenberg, Col. 1, Lines 6-10) and versatility.

Further in the same field of endeavor, Song teaches a wireless telephone having an extendable antenna (*third body member*) (Figure 1, antenna housing "28"), wherein the antenna is connected (*fourth connecting member*) to a hinge mechanism (*equivalent to first bracket*) through a phone body (Figure 1). The antenna rotates about an axis (*fourth axis*) that substantially parallel to the axis the hinge provides (Figures 1 and 2). In light of the teaching of Song, it would have been obvious to one of ordinary skill in the art to include the extendable antenna in Hiroyasu in the position shown in Song, because an artisan of ordinary skill in the art would recognize that this would put the antenna in a protected position (see Song, [0005] and [0006]).

*Note that when Hiroyasu, Goldenberg and Song are combined, the first body member (body section of Hiroyasu), second body member (display section of Hiroyasu) (both by way of Goldenberg's hinge) and third body member (antenna of Song) rotate about the axes set forth independently.*

As to claim 4, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 1, wherein said fourth connecting member is a detachable connecting member for detachably connecting to the third body member of the handheld electronic device (see Song, Figures 1 and 2).

As to claim 5, Hiroyasu et al. , as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 1, wherein the connecting members comprise at least one boss, the brackets being mounted on the boss (see Hiroyasu, Figure 5, supporting member “74”).

As to claim 6, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 1\*, wherein the first connecting member comprises two bosses located along the first axis (see Hiroyasu, Figure 5).

As to claim 7, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 5, wherein the second connecting member comprises two bosses located along the second axis (see Goldenberg, Figures 1 and 2).

As to claim 8, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to any claim 5, wherein the third connecting member comprises a single boss located on the third axis (see Song, Figures 1 and 2).

As to claim 9, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 5, wherein the fourth connecting member comprises a single boss located on the fourth rotational axis (see Song, Figures 1 and 2).

As to claim 10, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 5, wherein the brackets have circular holes through

which each boss extends, the circular holes having an inner surface which slidably cooperates with an outer surface of the bosses whereby the brackets are supported on the bosses and are rotatable relative to the bosses (see Hiroyasu, Figure 5, unnumbered circular holes).

As to claim **11**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 5, wherein each boss has a through hole for receiving wiring for electrically connecting the parts of the handheld electronic device (see Goldenberg, Figures 1 and 2, circuit "215").

As to claim **12**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 11, wherein said through hole is 4 mm or larger (see Hiroyasu, Figure 5).

As to claim **13**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 5, wherein each boss has an elastic member mounted thereon for providing an urging force against a side surface of the first or second bracket to securely hold the bracket on the boss (see Hiroyasu, Figure 5, element "74" has some degree of elasticity).

As to claim **15**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 1, wherein the first bracket is a H-shaped bracket comprising a cross-piece and four lobes, said lobes being perpendicular to said cross-piece, each lobe having a circular hole for mounting the first bracket on an outer surface of a boss, wherein the first bracket connects four bosses together (see cited portions of Goldenberg and Hiroyasu, Figure 5).

As to claim **16**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 15, wherein the cross-piece of the H-shaped bracket has a circular hole for mounting a boss, said boss comprising the fourth connecting member (see Goldenberg, Figure 2, endcap “125”).

As to claim **17**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device hinge according to claim 1, wherein the second bracket is a C-shaped bracket comprising a cross-piece and two lobes (see Goldenberg, Figure 2), said lobes being perpendicular to said cross-piece, each lobe having a circular hole for mounting the second bracket on an outer surface of a boss, and the cross-piece having a circular hole for mounting a boss, whereby the two bosses mounted in the lobes comprise the second connecting member and the boss mounted in the cross-piece comprises the third connecting member (see Hiroyasu, Figure 5).

As to claim **18**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device comprising a first rotatable body member, a second rotatable body member, a third rotatable body member and a handheld electronic device hinge according to claim 1, said handheld electronic device hinge connecting said first rotatable body member, said second rotatable body member, and said third rotatable body member (see cited portions of Hiroyasu, Goldenberg and Song).

As to claim **19**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device according to claim 18, wherein the first rotatable body member comprises a keypad (Figure 1, keyboard “34”) or a view screen.



As to claim **20**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device according to claim 18, wherein the second rotatable body member comprises a keypad or a view screen (Figure 1, LCD unit “28”).

As to claim **22**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device according to claim 18, wherein said third body member is a camera (Figure 5, camera “22”).

As to claim **23**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device according to claim 21, wherein said third body member is detachably connected to said hinge (see Hiroyasu, Figure 5, camera detached from hinge).

As to claim **24**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device according to claim 18, wherein said handheld electronic device further comprises a connecting element for connecting to a stand (see Hiroyasu, Figure 1, connector “67”).

As to claim **25**, Hiroyasu et al. teaches a handheld electronic device according to claim 18, wherein said handheld electronic device further comprises a connecting element for connecting to an armband (see Hiroyasu, Figure 1, connector “67”).

As to claim **26**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device according claim 18, wherein said handheld electronic device further comprises a connecting element for connecting to a necklace (see Hiroyasu, Figure 1, connector “67”).

As to claim **27**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device according to claim 18, wherein the electronic device is at least one of a mobile

gaming device, a mobile phone (see Hiroyasu, Figure 1), a hand-held video recorder, an electronic note pad, an electronic book, a PDA, a calculator, a personal stereo and a dictaphone.

As to claim **28**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device (see Hiroyasu, Figures 1,5 and 6) comprising a first rotatable body member (see Hiroyasu, body section “13”), a second rotatable body member (see Hiroyasu, display section “11”), a third rotatable body member (see Song, Figure 1, antenna “28” and see Hiroyasu, Figure 1, camera “22” in hinge “12”) and a handheld electronic device hinge (see Hiroyasu, Figure 5, hinge “12”), said handheld electronic device hinge being disposed between said first, second and third rotatable body members (see Hiroyasu, Figure 5) whereby said first, second and third rotatable body members are rotatable relative to each other (see cited portions of Song as well) and wherein said first rotatable body member comprises a keypad (see Hiroyasu, keyboard “34”), said second rotatable body member comprises a view screen (see Hiroyasu, Figure 1, LCD unit “18”) and said third rotatable body member comprises a camera (see Hiroyasu, Figure 1, camera unit in hinge “12”) wherein said second rotatable body member is rotatable around two perpendicular axes relative to said first rotatable body member (see Hiroyasu, Figure 6, axes “12-1” and “11-6”), and wherein said third rotatable body member is rotatable around two perpendicular axes relative to said first rotatable body member independently of the rotation of said second rotatable body member (see Song, Figure 1 and Goldenberg, Figures 1 and 2).

As to claim **32**, Hiroyasu et al., as modified by Goldenberg and Song, teaches a handheld electronic device according to claim 28, wherein said second rotatable body member is rotatable

around two perpendicular axes relative to said third rotatable body member (see Hiroyasu, Figure 6).

*Claim Rejections - 35 USC § 103*

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroyasu et al. (US 20030210440).

As to claim 14, Hiroyasu et al. teaches a handheld electronic device hinge according to claim 13. Although it is not stated explicitly is Hiroyasu et al., the examiner takes **Official Notice** that the concept of utilizing a spring to urge components together in a camera phone is well known and expected in the art. One of ordinary skill in the art would have been motivated to

utilize a spring to urge the brackets of Hiroyasu et al. together, because springs allow for increased durability.

### ***Conclusion***

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. DANIELS whose telephone number is (571)272-7362. The examiner can normally be reached on 8:00 A.M. - 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AD  
3/27/2010  
/Yogesh K Aggarwal/  
Primary Examiner, Art Unit 2622